IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for producing an image of a computer-simulated mannequin wearing a garment as defined by selected mannequin and garment parameter values, comprising:

generating objects corresponding to a representative mannequin and a garment placed in a simulation scene within a three-dimensional modeling environment;

simulating draping and collision of the garment with the mannequin within the simulation scene to generate a three-dimensional rendering frame of the mannequin wearing the garment;

constraining portions of the garment to reside within or outside of ~~particular~~ one or more shells defined around the mannequin in the rendering frame each, shell being separate from the mannequin;and,

rendering an image from the rendering frame.

2. (Original) The method of claim 1 wherein the rendered image is used to form a visual image on a computer display device.

3. (Original) The method of claim 1 further comprising generating rendering frames containing mannequin or garment objects as defined by selected parameter values by shape blending corresponding objects of previously generated rendering frames.

4. (Original) The method of claim 1 wherein the garment object comprises a plurality of garment panels that are connected together during the draping and collision simulation and further wherein the garment parameters include panel dimensions.

5. (Original) The method of claim 1 wherein two-dimensional images are rendered from a rendering frame using a plurality of camera positions.

6. (Currently Amended) The method of claim 1 further comprising performing a further partial simulation on the simulation scene within the modeling environment after constraining portions of the garment to reside within or outside of ~~particular~~ one or more shells defined around the mannequin in the rendering frame.

7. (Currently Amended) The method of claim 1 further comprising generating ~~a~~ multiple rendering frames containing the mannequin wearing multiple selected garments and wherein ~~particular~~ one or more shells around the mannequin are defined ~~such that~~ in each rendering frame that mimic collisions between the garments ~~are prevented~~.

8. (Currently Amended) The method of claim 7 wherein specific versions of garments are defined that reside within or outside of ~~particular~~ one or more shells and further wherein the versions of multiple garments used to generate the rendering frame are selected in accordance with versioning rules that define which versions of a particular garment are permitted when combined with another particular garment.

9. (Original) The method of claim 7 wherein separate rendering frames are generated for each garment.

10. (Original) The method of claim 9 wherein the separate rendering frames are combined into a composite two-dimensional image using Z-coordinates of the objects.

11. (Original) The method of claim 9 wherein the garments contained in the separate rendering frames are rendered into separate two-dimensional garment images that are layered upon a two dimensional rendering of the mannequin to create a composite two-dimensional image.

12. (Original) The method of claim 11 further comprising layering the separate two-dimensional images on a two-dimensional image of the mannequin in accordance with a

compositing rule that defines in what order specific garment images should be layered to thereby generate a composite two-dimensional image of the mannequin wearing the garments.

13. (Original) The method of claim 1 further comprising mapping texture objects to the garment objects in rendering frames wherein the texture objects are selected from a group consisting of colors, fabric patterns, buttons, collars, and ornaments.

14. (Original) The method of claim 1 wherein an image rendered from the rendering frame is transmitted over a network to a display device.

15. (Original) A processor-readable storage medium having processor-executable instructions for performing the method recited in claim 1.

16. (Currently Amended) A method for producing an image of a computer-simulated mannequin wearing a garment as defined by selected mannequin and garment parameter values, comprising:

generating objects corresponding to a representative mannequin and a garment placed in a simulation scene within a three-dimensional modeling environment;

simulating draping and collision of the garment with the mannequin within the simulation scene to generate a three-dimensional rendering frame of the mannequin wearing the garment;

generating a rendering frames containing mannequin or garment objects as defined by selected parameter values by shape blending corresponding objects of one or more previously generated rendering frames; and,

rendering an image from the rendering frame.

17. (Original) The method of claim 16 wherein the garment object comprises a plurality of garment panels that are connected together during the draping and collision simulation and further wherein the garment parameters include panel dimensions.

18. (Currently Amended) The method of claim 16 further comprising generating ~~a~~ multiple rendering frames containing the mannequin wearing multiple selected garments and wherein ~~particular~~ one or more shells around the mannequin are defined in each rendering frame that mimic ~~such that~~ collisions between the garments ~~are prevented~~.

19. (Currently Amended) A method for generating an image of a computer-simulated garment suitable for combining into a composite image of a selected computer-simulated mannequin wearing selected garments, comprising:

generating objects corresponding to a mannequin and a garment placed in a simulation scene within a three-dimensional modeling environment;

simulating draping and collision of the garment with the mannequin in the simulation scene to generate a three-dimensional rendering frame containing the mannequin wearing the garment;

constraining portions of the garment to reside within or outside of ~~particular~~ one or more shells defined around the mannequin in the rendering frame, each shell being separate from the mannequin; and,

rendering a garment image from the rendering frame.

20. (Original) The method of claim 19 further comprising rendering images of a plurality of versions of particular garments that are combinable into composite images in accordance with versioning rules, wherein a version of a garment is generated by constraining portions of the garment object within a rendering frame to reside within or outside of a particular shell defined around the mannequin.

21. (Currently Amended) The method of claim 20 further comprising generating rendering frames containing mannequin or garment objects as defined by selected parameter values by shape blending corresponding objects of one or more previously generated rendering frames.

22. (Original) The method of claim 19 further comprising mapping texture objects to the garment object in a rendering frame before rendering the garment into a two-dimensional garment image.

23. (Original) The method of claim 19 further comprising rendering from a rendering frame a plurality of garment images corresponding to a plurality of camera positions.

24. (Original) The method of claim 20 wherein a garment in the rendering frame is modified in accordance with a selected garment parameter value by modifying the parameter in the rendering frame and performing a partial further simulation to simulate motion and collision of the modified garment with the mannequin.

25. (Original) The method of claim 24 wherein the garment model comprises a plurality of garment panels that are connected together during the draping and collision simulation and wherein the garment parameters include panel dimension parameters.

26. (Original) The method of claim 20 further comprising storing in a garment image repository garment images corresponding to a plurality of garment parameter values and created for a population of mannequins defined by a plurality of parameter values.

27. (Original) The method of claim 20 wherein the versions of particular garments that are rendered into garment images include versions differing by a fitting characteristic.

28. (Original) The method of claim 20 wherein the versions of particular garments that are rendered into garment images include versions differing by a wearing style.

29. (Currently Amended) A system for generating images of a computer-simulated mannequin wearing a garment as defined by selected mannequin and garment parameter values, comprising:

a user interface by which a user selects a mannequin and one or more garments to be worn by the mannequin, wherein the mannequin and garments selected may be further defined by specific mannequin and garment parameter values;

a three-dimensional modeling environment for generating objects corresponding to a representative mannequin and a garment placed in a simulation scene and for simulating draping and collision of the garment with the mannequin within the simulation scene to generate a three-dimensional rendering frame of the mannequin wearing the garment; and,

means for constraining portions of the garment to reside within or outside of ~~particular~~ one or more shells defined around the mannequin in the rendering frame, each shell being separate from the mannequin.

30. (Currently Amended) The system of claim 29 wherein particular shells around the mannequin are defined ~~such~~ that mimic collisions between ~~the~~ multiple garments ~~are prevented~~ when ~~a~~ multiple rendering frames containing the mannequin wearing multiple selected garments are ~~is~~ generated.

31. (Currently Amended) The system of claim 30 wherein specific versions of garments are defined that reside within or outside of ~~particular~~ one or more shells and further wherein the versions of multiple garments used to generate the rendering frame are selected in accordance with versioning rules that define which versions of a particular garment are permitted when combined with another particular garment.

32. (Original) A system for generating images of a computer-simulated mannequin wearing a garment as defined by selected mannequin and garment parameter values, comprising:

a user interface by which a user selects a mannequin and one or more garments to be worn by the mannequin, wherein the mannequin and garments selected may be further defined by specific mannequin and garment parameter values;

a three-dimensional modeling environment for generating objects corresponding to a representative mannequin and a garment placed in a simulation scene and for simulating draping

and collision of the garment with the mannequin within the simulation scene to generate a three-dimensional rendering frame of the mannequin wearing the garment; and,

means for generating a rendering frame containing mannequin or garment objects as defined by selected parameter values by shape blending corresponding objects of previously generated rendering frames.

33. (Currently Amended) The system of claim 32 further comprising means for constraining portions of the garment to reside within or outside of ~~particular~~ one or more shells defined around the mannequin in the rendering frame, wherein each shell is a construct separate from the mannequin that mimics another garment during the draping and collision simulation.

34. (Original) A system for displaying a selected computer-simulated mannequin wearing a selected garment, comprising:

a user interface by which a user selects a mannequin and one or more garments to be worn by the mannequin, wherein the mannequin and garments selected may be further defined by specific mannequin and garment parameter values;

a repository containing a plurality of two-dimensional garment images and mannequin images as defined by specific parameters;

a compositing rule interpreter for displaying the two-dimensional images of user-selected garments and of a selected mannequin in a layered order dictated by compositing rules.

35. (Original) The system of claim 34 wherein the garment images contained in the repository are created by rendering an image from a three-dimensional simulation scene containing a mannequin wearing the garment.

36. (Original) The system of claim 34 further comprising a versioning rule interpreter for choosing among versions of the garment images for displaying in accordance with versioning rules that define which versions of particular garments are permitted when combined with another particular garment.

37. (Original) The system of claim 35 wherein the compositing rule interpreter displays two-dimensional images of versions of user-selected garments chosen by the versioning rule interpreter and of a selected mannequin in a layered order dictated by the compositing rules.

38. (Currently Amended) The system of claim 34 ~~wherein the garment images are created by~~ further comprising :

means for generating objects corresponding to a mannequin and a garment placed in a simulation scene within a three-dimensional modeling environment;

means for simulating draping and collision of the garment with the mannequin in the simulation scene to generate a three-dimensional rendering frame containing the mannequin wearing the garment;

means for constraining portions of the garment to reside within or outside of ~~particular~~ one or more shells defined around the mannequin in the rendering frame, each shell being separate from the mannequin; and,

means for rendering a two-dimensional garment image from the rendering frame.

39. (Original) The system of claim 34 wherein the mannequin parameters include a parameter corresponding to a body measurement.

40. (Original) The system of claim 34 wherein the mannequin parameters include a parameter designating selection of a particular mannequin from a population of mannequins.

41. (Original) The system of claim 34 wherein the garment parameters are selected from a group consisting of dimension, color, and style.

42. (Original) The system of claim 34 wherein the plurality of two-dimensional garment and mannequin images are rendered from a plurality of selectable camera angles.

43. (Original) The system of claim 34 wherein the user interface permits selection of versions of particular garments that are rendered into garment images that exhibit a particular wearing style.

44. (Original) A system for displaying a selected computer-simulated mannequin wearing a selected garment, comprising:

a user interface by which a user selects a mannequin and one or more garments to be worn by the mannequin, wherein the mannequin and garments selected may be further defined by specific mannequin and garment parameter values;

a repository containing a plurality of two-dimensional garment images and mannequin images as defined by specific parameters, wherein the images contained in the repository are created by rendering an image from a three-dimensional simulation scene containing a mannequin wearing the garment;

means for displaying the two-dimensional images of user-selected garments and of a selected mannequin in a layered order determined from depth information contained in the simulation scene.

45. (Original) The system of claim 44 wherein the plurality of two-dimensional garment and mannequin images are rendered from a plurality of selectable camera angles.